CLAIMS

What is claimed is:

1   1.   An apparatus for storing an identification data string used in identifying

2   characteristic of a device in a communications circuit, comprising:

3   a communications controller adapted for connection to a device and a

4   communications circuit; and

5   a programmable non-volatile memory for storing an identification data

6   string representative of the capabilities of the device.

1   2.   The apparatus according to claim 1, wherein said programmable non-

2   volatile memory is an electrically erasable and programmable read only memory

3   (EEPROM).

1   3.   The apparatus according to claim 1, wherein said programmable non-

2   volatile memory is programmable flash memory.

1   4.   The apparatus according to claim 1, wherein said communications controller

2   generates a serial clock rate.

1   5.   The apparatus according to claim 1, wherein the communications circuit is

2   wireless.

1   6.   The apparatus according to claim 5, wherein the wireless communications

2   circuit is selected from the group consisting of infrared, Bluetooth and IrDA.

1   7.   The apparatus according to claim 1, wherein the communications circuit is

2   wired.

1   8.   The apparatus according to claim 7, wherein the wired communications

2   circuit is selected from the group consisting of ethernet, USB, firewire, DALI, LIN, J-1850

3   and IEEE-1451.

1   9.   The apparatus according to claim 1, wherein serial data is transmitted from a

2   UART and serial data is received by the UART.

1   10.   The apparatus according to claim 1, wherein said programmable non-

2   volatile memory is programmed with a first identification data string that is generic, and

3   said programmable non-volatile memory is adapted to be programmed with a second

4   identification data string that is associated with specific capabilities of the device.

1   11.   The apparatus according to claim 1, wherein said communications controller

2   is selected from the group consisting of a microcontroller, a microprocessor, digital signal

3   processor, a programmable logic array and an application specific integrated circuit.

1   12.   A method for storing an identification data string used in identifying

2   characteristic of a device in a communications circuit, said method comprising the steps

3   of:

4   providing a communications controller adapted for connection to a device

5   and a communications circuit;

6   providing a programmable non-volatile memory; and

7   storing an identification data string representative of the device

8   capabilities.

1   13.   The method according to claim 12, further comprising the steps of

2 transmitting serial data with a UART and receiving serial data with the UART.

1   14.   The method according to claim 13, wherein a portion of the transmitted

2 serial data is the identification data string.

1   15.   A system for communications between two or more devices, said system

2 comprising:

3   first device application logic adapted for sending transmit serial data at a

4   serial clock rate and receiving receive serial data at the serial clock rate;

5   a first communications controller coupled to said first device application

6   logic, said first communications controller encoding the transmit serial data and

7   decoding the receive serial data on a communication circuit;

8   second device application logic adapted for receiving the transmit serial

9   data at the serial clock rate and transmitting the receive serial data at the serial

10   clock rate;

11   a second communications controller coupled to said second device

12   application logic, said communications controller decoding the transmit serial

13   data and encoding the receive serial data on the communication circuit;

14   said first and second communications controllers having a first

15   programmable non-volatile memory for storing a first identification data string

16   representative of the capabilities of the first device;

17   said second communications controllers having a second programmable

18   non-volatile memory for storing a second identification data string representative

19   of the capabilities of the second device; and

20   wherein the first and second identification data strings are transmitted and

21   received between the first and second devices over the communications circuit.

1   16.   The system according to claim 15, further comprising:

2   a first infrared transmitter and first encoder coupled to said first

3   communications controller, wherein said first infrared transmitter and first

4   encoder convert first transmit pulses from said first communications controller

5   into first infrared light pulses;

6   a second infrared transmitter and second encoder coupled to said second

7   communications controller, wherein said second infrared transmitter and second

8   encoder convert second transmit pulses from said second communications

9   controller into second infrared light pulses;

10   a first infrared receiver adapted for receiving the second infrared light

11   pulses and converting the second infrared light pulses into first receive pulses;

12   a second infrared receiver adapted for receiving the first infrared light

13   pulses and converting the first infrared light pulses into second receive pulses;

14   said first infrared receiver coupled to said first communications controller;

15   and

16   said second infrared receiver coupled to said second communications

17   controller.

1   17.   The system according to claim 15, wherein said first and second device

2   application logic are selected from the group consisting of a microcontroller, a

3   microprocessor, digital signal processor, a programmable logic array and an application

4   specific integrated circuit.

1   18.   The system according to claim 15, wherein said first and second device

2   application logic comprises a central processing unit, a random access memory and a read

3   only memory.